

MSU - Center for Advanced Vehicular Systems P.O. Box 6343 Mississippi State, MS 39762

Dr. Mark E. Keenum

AGENCY ADDRESS CHIEF EXECUTIVE OFFICER

	Actual Expenses FY Ending June 30, 2012	Estimate Expenses FY Ending June 30, 2013	Requested for FY Ending June 30, 2014	Requested Increase (+) or Decrease (-) FY 2014 vs. FY 2013 (Col. 3 vs. Col. 2)	
				AMOUNT	PERCENT
I. A. PERSONAL SERVICES					
1. Salaries, Wages & Fringe Benefits (Base)	2,274,904	2,453,903	2,453,903		
a. Additional Compensation			166,247		
b. Proposed Vacancy Rate (Dollar Amount)					
c. Per Diem					
Total Salaries, Wages & Fringe Benefits	2,274,904	2,453,903	2,620,150	166,247	6.77%
2. Travel					
a. Travel & Subsistence (In-State)	12,500	32,000	32,000		
b. Travel & Subsistence (Out-of-State)	15,764				
c. Travel & Subsistence (Out-of-Country)					
Total Travel	28,264	32,000	32,000		
B. CONTRACTUAL SERVICES (Schedule B):					
a. Tuition, Rewards & Awards	3,235	2,500	2,500		
b. Communications, Transportation & Utilities	2,671	15,500	15,500		
c. Public Information					
d. Rents					
e. Repairs & Service	54,472	250	250		
f. Fees, Professional & Other Services	39,513	1,500	1,500		
g. Other Contractual Services	333,547	181,730	181,730		
h. Data Processing	60,874	58,520	58,520		
i. Other					
Total Contractual Services	494,312	260,000	260,000		
C. COMMODITIES (Schedule C):					
a. Maintenance & Construction Materials & Supplies					
b. Printing & Office Supplies & Materials	38,051	43,500	43,500		
c. Equipment, Repair Parts, Supplies & Accessories	3,087	5,500	5,500		
d. Professional & Scientific Supplies & Materials	10,188	13,400	13,400		
e. Other Supplies & Materials	12,578	22,600	22,600		
Total Commodities	63,904	85,000	85,000		
D. CAPITAL OUTLAY:					
1. Total Other Than Equipment (Schedule D-1)					
2. Equipment (Schedule D-2):					
b. Road Machinery, Farm & Other Working Equipment					
c. Office Machines, Furniture, Fixtures & Equipment					
d. IS Equipment (Data Processing & Telecommunications)					
e. Equipment - Lease Purchase					
f. Other Equipment					
Total Equipment (Schedule D-2)					
3. Vehicles (Schedule D-3)					
4. Wireless Comm. Devices (Schedule D-4)					
E. SUBSIDIES, LOANS & GRANTS (Schedule E):	476,806	469,097	469,097		
TOTAL EXPENDITURES	3,338,190	3,300,000	3,466,247	166,247	5.03%
II. BUDGET TO BE FUNDED AS FOLLOWS:					
Cash Balance-Unencumbered					
General Fund Appropriation (Enter General Fund Lapse Below)	3,338,190	3,300,000	3,466,247	166,247	5.03%
State Support Special Funds					
Federal Funds _____ Other Special Funds (Specify) _____					
Less: Estimated Cash Available Next Fiscal Period					
TOTAL FUNDS (equals Total Expenditures above)	3,338,190	3,300,000	3,466,247	166,247	5.03%
GENERAL FUND LAPSE					
III. PERSONNEL DATA					
Number of Positions Authorized in Appropriation Bill					
a.) Full Perm	55	55	55		
b.) Full T-L					
c.) Part Perm.					
d.) Part T-L	2	2	2		
Average Annual Vacancy Rate (Percentage)					
a.) Full Perm					
b.) Full T-L					
c.) Part Perm.					
d.) Part T-L					

Approved by: _____
Official of Board or Commission

Budget Officer: Mr. Don Zant / dzant@budgetplan.msstate.edu

Phone Number: 662-325-2231

Submitted by: Dr. Mark E. Keenum
Name

Title: President

Date: July 25, 2012

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2012 Actual Amount	% Of Line Item	% Of Total Budget	FY 2013 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2014 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	2,274,904	100.00%		2,453,903	100.00%		2,620,150	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Salaries	2,274,904		68.14%	2,453,903		74.36%	2,620,150		75.59%
1. General State Support Special (Specify)	28,264	100.00%		32,000	100.00%		32,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Travel	28,264		0.84%	32,000		0.96%	32,000		0.92%
1. General State Support Special (Specify)	494,312	100.00%		260,000	100.00%		260,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Contractual	494,312		14.80%	260,000		7.87%	260,000		7.50%
1. General State Support Special (Specify)	63,904	100.00%		85,000	100.00%		85,000	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Commodities	63,904		1.91%	85,000		2.57%	85,000		2.45%

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2012 Actual Amount	% Of Line Item	% Of Total Budget	FY 2013 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2014 Requested Amount	% Of Line Item	% Of Total Budget
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Other Than Equipment									
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Equipment									
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Vehicles									
1. General _____ State Support Special (Specify) _____									
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal _____ Other Special (Specify) _____									
10.									
11.									
12.									
13.									
Total Wireless Comm. Devices									

REQUEST BY FUNDING SOURCE

Name of Agency MSU - Center for Advanced Vehicular Systems

Specify Funding Sources As Shown Below	FY 2012 Actual Amount	% Of Line Item	% Of Total Budget	FY 2013 Estimated Amount	% Of Line Item	% Of Total Budget	FY 2014 Requested Amount	% Of Line Item	% Of Total Budget
1. General State Support Special (Specify)	476,806	100.00%		469,097	100.00%		469,097	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
Total Subsidies, Loans & Grants	476,806		14.28%	469,097		14.21%	469,097		13.53%
1. General State Support Special (Specify)	3,338,190	100.00%		3,300,000	100.00%		3,466,247	100.00%	
2. Budget Contingency Fund									
3. Education Enhancement Fund									
4. Health Care Expendable Fund									
5. Tobacco Control Fund									
6. ARRA - Education, Disc., FMAP									
7. Hurricane Disaster Reserve Fund									
8. Capital Expense Fund									
9. Federal Other Special (Specify)									
10.									
11.									
12.									
13.									
TOTAL	3,338,190		100.00%	3,300,000		100.00%	3,466,247		100.00%

SPECIAL FUNDS DETAIL

MSU - Center for Advanced Vehicular Systems
Name of Agency

S. STATE SUPPORT SPECIAL FUNDS		(1) Actual Revenues FY 2012	(2) Estimated Revenues FY 2013	(3) Requested Revenues FY 2014
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Budget Contingency Fund	BCF - Budget Contingency Fund			
Education Enhancement Fund	EEF - Education Enhancement Fund			
Health Care Expendable Fund	HCEF - Health Care Expendable Fund			
Tobacco Control Fund	TCF - Tobacco Control Fund			
ARRA - Education, Discretionary, FMAP	ARRA - Education, Discretionary, FMAP			
Hurricane Disaster Reserve Fund	HDRF - Hurricane Disaster Reserve Fund			
Capital Expense Fund	CEF - Capital Expense Fund			
Section S TOTAL				

A. FEDERAL FUNDS*		Percentage Match Requirement		(1) Actual Revenues FY 2012	(2) Estimated Revenues FY 2013	(3) Requested Revenues FY 2014
Source (Fund Number)	Detailed Description of Source	FY 2013	FY 2014			
	Cash Balance-Unencumbered					
Section A TOTAL						

B. OTHER SPECIAL FUNDS (NON-FED'L)		(1) Actual Revenues FY 2012	(2) Estimated Revenues FY 2013	(3) Requested Revenues FY 2014
Source (Fund Number)	Detailed Description of Source			
	Cash Balance-Unencumbered			
Section B TOTAL				

Section S + A + B TOTAL				
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C. TREASURY FUND/BANK ACCOUNTS*			(1) Reconciled Balance as of 6/30/12	(2) Balance as of 6/30/13	(3) Balance as of 6/30/14
Name of Fund/Account	Fund/Account Number	Name of Bank (If Applicable)			

* Any non-federal funds that have restricted uses must be identified and narrative of restrictions attached.

**NARRATIVE OF SPECIAL FUNDS DETAIL
AND TREASURY FUND/BANK ACCOUNTS**

MSU - Center for Advanced Vehicular Systems
Name of Agency

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. _____ of 2 Programs

AGENCY

SUMMARY OF ALL PROGRAMS

PROGRAM

	FY 2012 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,274,904				2,274,904
Travel	28,264				28,264
Contractual Services	494,312				494,312
Commodities	63,904				63,904
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	476,806				476,806
Total	3,338,190				3,338,190
No. of Positions (FTE)	57.00				57.00

	FY 2013 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,453,903				2,453,903
Travel	32,000				32,000
Contractual Services	260,000				260,000
Commodities	85,000				85,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	469,097				469,097
Total	3,300,000				3,300,000
No. of Positions (FTE)	57.00				57.00

	FY 2014 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	166,247				166,247
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	166,247				166,247
No. of Positions (FTE)					

Note: FY2014 Total Request = FY2013 Estimated + FY2014 Incr(Decr) for Continuation + FY2014 Expansion/Reduction of Existing Activities + FY2014 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems _____

Program No. _____ of 2 Programs

AGENCY

SUMMARY OF ALL PROGRAMS

PROGRAM

FY 2014 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2014 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2014 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,620,150			2,620,150
Travel	32,000			32,000
Contractual Services	260,000			260,000
Commodities	85,000			85,000
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	469,097			469,097
Total	3,466,247			3,466,247
No. of Positions (FTE)	57.00			57.00

Note: FY2014 Total Request = FY2013 Estimated + FY2014 Incr(Decr) for Continuation + FY2014 Expansion/Reduction of Existing Activities + FY2014 New Activities.

SUMMARY OF PROGRAMS
FORM MBR-1-03sum

MSU - Center for Advanced Vehicular Systems
Agency Name

FUNDING REQUESTED FISCAL YEAR 2014

PROGRAM	GENERAL	ST.SUPP.SPECIAL	FEDERAL	OTHER SPECIAL	TOTAL
1. RESEARCH	2,897,436				2,897,436
2. PUBLIC SERVICE	568,811				568,811
SUMMARY OF ALL PROGRAMS	3,466,247				3,466,247

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

	FY 2012 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	2,067,567				2,067,567
Travel	6,540				6,540
Contractual Services	415,476				415,476
Commodities	25,839				25,839
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	275,015				275,015
Total	2,790,437				2,790,437
No. of Positions (FTE)	52.29				52.29

	FY 2013 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	2,183,225				2,183,225
Travel	7,000				7,000
Contractual Services	215,000				215,000
Commodities	40,000				40,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	313,245				313,245
Total	2,758,470				2,758,470
No. of Positions (FTE)	52.29				52.29

	FY 2014 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	138,966				138,966
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	138,966				138,966
No. of Positions (FTE)					

Note: FY2014 Total Request = FY2013 Estimated + FY2014 Incr(Decr) for Continuation + FY2014 Expansion/Reduction of Existing Activities + FY2014 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 1 of 2 Programs

AGENCY

RESEARCH

PROGRAM

FY 2014 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2014 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2014 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	2,322,191			2,322,191
Travel	7,000			7,000
Contractual Services	215,000			215,000
Commodities	40,000			40,000
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	313,245			313,245
Total	2,897,436			2,897,436
No. of Positions (FTE)	52.29			52.29

Note: FY2014 Total Request = FY2013 Estimated + FY2014 Incr(Decr) for Continuation + FY2014 Expansion/Reduction of Existing Activities + FY2014 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

	FY 2012 Actual				
	(1) General	(2) State Support Special	(3) Federal	(4) Other Special	(5) Total
Salaries, Wages, Fringe	207,337				207,337
Travel	21,724				21,724
Contractual Services	78,836				78,836
Commodities	38,065				38,065
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	201,791				201,791
Total	547,753				547,753
No. of Positions (FTE)	4.71				4.71

	FY 2013 Estimate				
	(6) General	(7) State Support Special	(8) Federal	(9) Other Special	(10) Total
Salaries, Wages, Fringe	270,678				270,678
Travel	25,000				25,000
Contractual Services	45,000				45,000
Commodities	45,000				45,000
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants	155,852				155,852
Total	541,530				541,530
No. of Positions (FTE)	4.71				4.71

	FY 2014 Increase/Decrease for Continuation				
	(11) General	(12) State Support Special	(13) Federal	(14) Other Special	(15) Total
Salaries, Wages, Fringe	27,281				27,281
Travel					
Contractual Services					
Commodities					
Other Than Equipment					
Equipment					
Vehicles					
Wireless Comm. Devs.					
Subsidies, Loans & Grants					
Total	27,281				27,281
No. of Positions (FTE)					

Note: FY2014 Total Request = FY2013 Estimated + FY2014 Incr(Decr) for Continuation + FY2014 Expansion/Reduction of Existing Activities + FY2014 New Activities.

CONTINUATION AND EXPANDED REQUEST

MSU - Center for Advanced Vehicular Systems _____

Program No. 2 of 2 Programs

AGENCY

PUBLIC SERVICE

PROGRAM

FY 2014 Expansion/Reduction of Existing Activities				
(16) General	(17) State Support Special	(18) Federal	(19) Other Special	(20) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2014 New Activities				
(21) General	(22) State Support Special	(23) Federal	(24) Other Special	(25) Total
Salaries, Wages, Fringe				
Travel				
Contractual Services				
Commodities				
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants				
Total				
No. of Positions (FTE)				

FY 2014 Total Request				
(26) General	(27) State Support Special	(28) Federal	(29) Other Special	(30) Total
Salaries, Wages, Fringe	297,959			297,959
Travel	25,000			25,000
Contractual Services	45,000			45,000
Commodities	45,000			45,000
Other Than Equipment				
Equipment				
Vehicles				
Wireless Comm. Devs.				
Subsidies, Loans & Grants	155,852			155,852
Total	568,811			568,811
No. of Positions (FTE)	4.71			4.71

Note: FY2014 Total Request = FY2013 Estimated + FY2014 Incr(Decr) for Continuation + FY2014 Expansion/Reduction of Existing Activities + FY2014 New Activities.

PROGRAM DECISION UNITS

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
	FY 2013 Appropriation	Escalations By DFA	Non-Recurring Items	Personnel Cost Adjustments	Total Funding Change	FY 2014 Total Request		
EXPENDITURES:								
SALARIES	2,183,225			138,966	138,966	2,322,191		
GENERAL	2,183,225			138,966	138,966	2,322,191		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TRAVEL	7,000					7,000		
GENERAL	7,000					7,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	215,000					215,000		
GENERAL	215,000					215,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	40,000					40,000		
GENERAL	40,000					40,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
WIRELESS DEV								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
SUBSIDIES	313,245					313,245		
GENERAL	313,245					313,245		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TOTAL	2,758,470			138,966	138,966	2,897,436		

FUNDING:

GENERAL FUNDS	2,758,470			138,966	138,966	2,897,436		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
TOTAL	2,758,470			138,966	138,966	2,897,436		

POSITIONS:

GENERAL FTE	52.29					52.29		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
TOTAL FTE	52.29					52.29		

PRIORITY LEVEL:

				1				
	FY 2013 Appropriation	Escalations By DFA	Non-Recurring Items	Personnel Cost Adjustments	Total Funding Change	FY 2014 Total Request		
EXPENDITURES:								
SALARIES	270,678			27,281	27,281	297,959		
GENERAL	270,678			27,281	27,281	297,959		
ST.SUP.SPECIAL								
FEDERAL								

PROGRAM DECISION UNITS

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY

PROGRAM NAME

	A	B	C	D	E	F	G	H
OTHER								
TRAVEL	25,000					25,000		
GENERAL	25,000					25,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CONTRACTUAL	45,000					45,000		
GENERAL	45,000					45,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
COMMODITIES	45,000					45,000		
GENERAL	45,000					45,000		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
CAPITAL-OTE								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
EQUIPMENT								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
VEHICLES								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
WIRELESS DEV								
GENERAL								
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
SUBSIDIES	155,852					155,852		
GENERAL	155,852					155,852		
ST.SUP.SPECIAL								
FEDERAL								
OTHER								
TOTAL	541,530			27,281	27,281	568,811		

FUNDING:

GENERAL FUNDS	541,530			27,281	27,281	568,811		
ST.SUP.SPCL.FUNDS								
FEDERAL FUNDS								
OTHER SP.FUNDS								
TOTAL	541,530			27,281	27,281	568,811		

POSITIONS:

GENERAL FTE	4.71					4.71		
ST.SUP.SPCL.FTE								
FEDERAL FTE								
OTHER SP FTE								
TOTAL FTE	4.71					4.71		

PRIORITY LEVEL:

				2				
--	--	--	--	---	--	--	--	--

PROGRAM NARRATIVE

Program Data Collected in Accordance with the
Mississippi Performance Budget and Strategic Planning Act of 1994
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY NAME

PROGRAM NAME

I. Program Description:

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, improved crashworthiness, crash avoidance, new power generation, autonomous vehicle control (robotics) as well as advances in improved diagnostics, manufacturing, human interface, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

II. Program Objective:

The objective of CAVS is to serve Mississippi State University, government, and industry through research and development of advanced computational modeling, simulation, and design of physical systems to solve real world problems. CAVS houses multiple research groups that provide cross-disciplinary research capabilities to address advancing technologies to solve complex problems for industry and our customers. As a result of CAVS' application-driven, team-oriented approach to basic and applied research on complex industrially-relevant engineering problems, we have contributed to:

- " improved vehicle performance and reduced design cycle time and cost;
- " timely generation of knowledge on the behavior and capabilities of missile, flight, naval vessels and other physical systems;
- " analysis of behavior and performance of engineering systems (including humans) under adverse or catastrophic conditions;
- " development of high-fidelity simulation tools and training;
- " simulation and design systems to both enable and support designers and manufacturers of land, sea, air and space vehicular systems.

III. Current program activities as supported by the funding in Columns 6-15 (FY 13 Estimated & FY 14 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:**(D) Personnel Cost Adjustments:**

In order to meet rising personnel costs for PERS increases, enrollment increases, and to prevent further decline in competitive faculty salaries, funds are requested for personnel cost adjustments to maintain competitive salary and benefits for faculty.

PROGRAM NARRATIVE

Program Data Collected in Accordance with the
Mississippi Performance Budget and Strategic Planning Act of 1994
(To Accompany Form MBR-1-03)

MSU - Center for Advanced Vehicular Systems

2 - PUBLIC SERVICE

AGENCY NAME

PROGRAM NAME

I. Program Description:

CAVS has proven to be a leading economic development engine for the State of Mississippi. In addition to the CAVS MSU campus facility, in support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. Nissan and its suppliers in Mississippi are in a global labor competition, so securing lasting jobs is an important activity. Further, there is an increased demand for engineers and technologists to support the increasingly complex problems. According to surveys conducted by the Manufacturing Extension Partnership of Mississippi in the 5-year period of 2006-2011, CAVS has had more than \$5.3 billion economic impact on the state and is responsible for over 2,400 jobs created or retained. Similar projects on behalf of other Mississippi companies help secure jobs throughout the state.

II. Program Objective:

Although CAVS research, development, and extension activities are important to Nissan and its suppliers in attaining its goals, it is also clear CAVS has a broader impact. We are already playing a role with the new PACCAR engine plant and SeverStal steel mill located near the Golden Triangle Regional airport. We are also working closely with Nucor, a more established steel firm in the state. CAVS current efforts have touched on many manufacturers and hundreds of employees in the State, especially via our workforce training efforts. From this foundation, CAVS brings the promise for enhanced productivity to further grow the employment base. Thus, the financial support for growing CAVS and its cadre of skilled technologists has significant and long-term implications to the State.

III. Current program activities as supported by the funding in Columns 6-15 (FY 13 Estimated & FY 14 Increase/Decrease for continuations) of MBR-1-03 and designated Budget Unit Decisions columns of MBR-1-03-A:**(D) Personnel Cost Adjustments:**

In order to meet rising personnel costs for PERS increases, enrollment increases, and to prevent further decline in competitive faculty salaries, funds are requested for personnel cost adjustments to maintain competitive salary and benefits for faculty.

PROGRAM PERFORMANCE INDICATORS AND MEASURES
 Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
 Planning Act of 1994

MSU - Center for Advanced Vehicular Systems

1 - RESEARCH

AGENCY NAME

PROGRAM NAME

PROGRAM OUTPUTS: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	FY 2012 <u>ACTUAL</u>	FY 2013 <u>ESTIMATED</u>	FY 2014 <u>PROJECTED</u>
1 # Agency Proposals	73.00	75.00	76.00
2 # Company Proposals	11.00	12.00	14.00
3 \$ Agency Proposals (in millions)	46.34	47.00	48.00
4 \$ Company Proposals (in millions)	5.51	6.51	7.00
5 Expenditures - Internal (in millions)	4.68	5.00	5.50
6 Expenditures - Agency (in millions)	15.78	16.25	17.00
7 Expenditures - Company (in millions)	0.85	0.90	1.00
8 # Awards - Agency	39.00	41.00	42.00
9 # Awards - Company	11.00	12.00	14.00
10 \$ Agency Awards (in millions)	5.10	5.20	5.50
11 \$ Company Awards (in millions)	1.13	1.25	1.50
12 # Managers	4.00	4.00	4.00
13 # Academic Faculty	40.00	40.00	42.00
14 # Research Professionals	100.00	102.00	104.00
15 # Support Staff	27.00	28.00	29.00
16 # Post Docs	18.00	20.00	22.00
17 # PhD Students Employed	119.00	120.00	125.00
18 # MS Students Employed	43.00	45.00	46.00
19 # Undergraduate Students Employed	121.00	125.00	128.00
20 # Journal Articles Submitted	4.00	5.00	7.00
21 # Conference Papers Submitted	0.01	0.01	0.01
22 # Authors of Proposals	60.00	61.00	62.00

PROGRAM EFFICIENCIES: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	FY 2012 <u>ACTUAL</u>	FY 2013 <u>ESTIMATED</u>	FY 2014 <u>PROJECTED</u>
1 # Proposals / # Faculty & Mangers	1.91	2.08	2.15
2 \$ Proposals / # Faculty & # Managers (in millions)	1.18	1.25	1.30
3 Expenditures / # Faculty & # Mangers	0.48	0.49	0.50
4 # Awards / # Faculty & # Managers	1.14	1.16	1.18
5 Expenditures / # Support Staff and Others (in millions)	0.05	0.05	0.05
6 # Publications/ # Faculty & # Managers	1.36	1.37	1.39
7 # Conference Papers / # Faculty & # Mangers	0.73	0.75	0.76
8 # Technical Reports / # Faculty & # Managers	0.30	0.31	0.33

PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

1 - RESEARCH
 PROGRAM NAME

PROGRAM OUTCOMES: (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2012</u> <u>ACTUAL</u>	<u>FY 2013</u> <u>ESTIMATED</u>	<u>FY 2014</u> <u>PROJECTED</u>
1 Book/Book Chapters Published	0.01	0.01	0.01
2 Articles Published in Trade Journals	3.00	3.00	4.00
3 Articles Published in Peer-reviewed Journals	57.00	60.00	62.00
4 Peer-reviewed Conference Papers	32.00	34.00	35.00
5 Peer-reviewed Conference Abstracts & Posters	17.00	18.00	20.00
6 Theses/Dissertations	4.00	5.00	7.00
7 Technical Reports	13.00	15.00	17.00
8 Awards/Recognitions	4.00	5.00	6.00
9 Non-refereed Conf. Papers/Abstracts/Posters	10.00	12.00	13.00

PROGRAM PERFORMANCE INDICATORS AND MEASURES
 Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
 Planning Act of 1994

MSU - Center for Advanced Vehicular Systems
 AGENCY NAME

2 - PUBLIC SERVICE
 PROGRAM NAME

PROGRAM OUTPUTS: (This is the measure of the process necessary to carry out the goals and objectives of this program. This is the volume produced, i.e., how many people served, how many documents generated.)

	<u>FY 2012</u> <u>ACTUAL</u>	<u>FY 2013</u> <u>ESTIMATED</u>	<u>FY 2014</u> <u>PROJECTED</u>
1 # Agency Proposals	13.00	14.00	15.00
2 # Company Proposals	4.00	5.00	6.00
3 \$ Agency Proposals	3.60	3.80	4.00
4 \$ Company Proposals	0.11	0.12	0.13
5 Expenditures - Internal	0.51	0.52	0.53
6 Expenditures - Agencies	0.35	0.36	0.37
7 Expenditures - Company	0.17	0.18	0.19
8 Award - Agencies	4.00	5.00	6.00
9 Awards - Company	3.00	4.00	5.00
10 \$ Agency Awards	0.39	0.42	0.44
11 \$ Company Awards	0.11	0.12	0.13
12 Managers	2.00	2.00	2.00
13 # Academic Faculty	2.00	2.00	2.00
14 # Research Professionals	18.00	18.00	18.00
15 # Support Staff	4.50	4.50	4.50
16 # Undergraduate Students Employed	3.00	3.00	3.00
17 # Books/Articles Submitted or awaiting publication	0.01	0.01	0.01
18 # Conf Papers Submitted or Awaiting Publication	0.01	0.01	0.01
19 # of Authors of Proposals	10.00	10.00	10.00

PROGRAM EFFICIENCIES: (This is the measure of the cost, unit cost or productivity associated with a given outcome or output. This measure indicates linkage between services and funding, i.e., cost per investigation, cost per student or number of days to complete investigation.)

	<u>FY 2012</u> <u>ACTUAL</u>	<u>FY 2013</u> <u>ESTIMATED</u>	<u>FY 2014</u> <u>PROJECTED</u>
1 # Proposals / # Faculty & Managers	4.25	4.75	5.25
2 \$ Proposals / # Faculty & Managers	0.93	0.98	1.03
3 Expenditures / # Faculty & Managers	0.26	0.26	0.27
4 # Awards / # Faculty & Managers	1.75	2.25	2.75
5 Expenditures / # Support Staff and Others	0.05	0.05	0.05
6 # Publications/# Faculty & Managers	0.01	0.01	0.01
7 # Papers Presented/# Faculty & Mangers	0.01	0.01	0.01
8 Tech Reports/# Faculty & Managers	6.86	2.67	2.18

PROGRAM OUTCOMES: (This is the measure of the quality or effectiveness of the services provided by this program. This measure provides an assessment of the actual impact or public benefit of your agency's actions. This is the results produced, i.e., increased customer satisfaction by x% within a 12-month period, reduce the number of traffic fatalities due to drunk drivers within a 12-month period.)

	<u>FY 2012</u> <u>ACTUAL</u>	<u>FY 2013</u> <u>ESTIMATED</u>	<u>FY 2014</u> <u>PROJECTED</u>
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PROGRAM PERFORMANCE INDICATORS AND MEASURES
Program Data Collected in Accordance with the Mississippi Performance Budget and Strategic
Planning Act of 1994

<u>MSU - Center for Advanced Vehicular Systems</u>		<u>2 - PUBLIC SERVICE</u>		
AGENCY NAME		PROGRAM NAME		
1	Book/Book Chapters Published	0.01	0.01	0.01
2	Articles Published in Trade Journals	0.01	0.01	0.01
3	Articles Published in Peer-reviewed Journals	0.01	0.01	0.01
4	Peer-reviewed Conference Papers	0.01	0.01	0.01
5	Peer-reviewed Conference Abstracts & Posters	1.00	1.00	1.00
6	Technical Reports	48.00	50.00	52.00
7	Awards/Recognitions	3.00	3.00	3.00

PROGRAM 3% GENERAL FUND REDUCTION AND NARRATIVE EXPLANATION

MSU - Center for Advanced Vehicular Systems

	Fiscal Year 2013 Funding			FY 2013 GF PERCENT REDUCED
	Total Funds	Reduced Amount	Reduced Funding Amount	
Program Name: (1) RESEARCH				
GENERAL	2,758,470	(82,754)	2,675,716	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	2,758,470	(82,754)	2,675,716	
Narrative Explanation: A 3% reduction in funding would be absorbed by covering more contractual costs with discretionary funding.				
Program Name: (2) PUBLIC SERVICE				
GENERAL	541,530	(16,246)	525,284	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	541,530	(16,246)	525,284	
Narrative Explanation: A 3% reduction in funding would be absorbed by covering more contractual costs with discretionary funding.				
SUMMARY OF ALL PROGRAMS				
GENERAL	3,300,000	(99,000)	3,201,000	(3.00%)
ST.SUPPORT SPECIAL				
FEDERAL				
OTHER SPECIAL				
TOTAL	3,300,000	(99,000)	3,201,000	

BOARD OF TRUSTEES OF INSTITUTIONS OF HIGHER LEARNING MEMBERS

MSU - Center for Advanced Vehicular Systems

Agency

A. Explain Rate and manner in which board members are reimbursed:

Board members are reimbursed through the Institutions of Higher Learning System Administration budget with a per diem of \$40 plus expenses.

B. Estimated number of meetings FY2013

12 (twelve)

C.	Names of Members	City, Town, Residence	Appointed By	Date of Appointment	Length of Term
1.	<u>Ms. Karen L. Cummins</u>	<u>Oakland, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
2.	<u>Dr. Bradford J. Dye, III</u>	<u>Oxford, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
3.	<u>Mr. Shane Hooper</u>	<u>Tupelo, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
4.	<u>Mr. Hal Parker</u>	<u>Bolton, MS</u>	<u>Bryant</u>	<u>May 2012</u>	<u>9 years</u>
5.	<u>Mr. Ed Blakeslee</u>	<u>Gulfport, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
6.	<u>Mr. Bob Owens</u>	<u>Terry, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
7.	<u>Mr. Aubrey Patterson</u>	<u>Tupelo, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
8.	<u>Ms. Robin Robinson</u>	<u>Laurel, MS</u>	<u>Barbour</u>	<u>May 2004</u>	<u>11 years</u>
9.	<u>Mr. Alan W. Perry</u>	<u>Jackson, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
10.	<u>Ms. Christine L. Pickering</u>	<u>Biloxi, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
11.	<u>Mr. C.D. Smith, Jr.</u>	<u>Meridian, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>
12.	<u>Dr. Douglas W. Rouse</u>	<u>Hattiesburg, MS</u>	<u>Barbour</u>	<u>May 2008</u>	<u>10 years</u>

Identify Statutory Authority (Code Section or Executive Order Number)*

Constitutional Amendment 213A of the Constitution of the State of Mississippi

*If Executive Order, please attach copy.

**SCHEDULE B
CONTRACTUAL SERVICES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014
A. TUITION, REWARDS & AWARDS (61010-61099)			
61010 Tuition			
61020 Employee Training	3,235	2,500	2,500
TOTAL (A)	3,235	2,500	2,500
B. TRANSPORTATION & UTILITIES (61100-61299)			
611XX Transportation of Goods (61180-61190)	2,008	15,000	15,000
61210 Electricity	663	500	500
61220 Gas			
61230 Water & Sewage			
TOTAL (B)	2,671	15,500	15,500
C. PUBLIC INFORMATION ((61300-61399)			
61310 Advertising & Public Information			
61340 Signs & Billboards			
61350 Exhibits & Displays			
TOTAL (C)			
D. RENTS (61400-61499)			
61420 Building & Floor Space			
61430 Land			
61440 Office Equipment			
61460 Other Equipment			
61470 Capitol Facilities - Rental			
61480 Exhibits, Displays & Conference Rooms			
TOTAL (D)			
E. REPAIRS & SERVICES (61500-61599)			
61500 Grounds, Walks, Fences & Lots	14,771		
61520 Buildings	37,983		
61530 Machinery & Field Equipment			
61540 Motor Vehicles	368	250	250
61550 Office Equipment & Furniture	75		
61580 Shop Equipment			
61590 Miscellaneous Items of Equipment	1,275		
TOTAL (E)	54,472	250	250
F. FEES, PROFESSIONAL & OTHER SERVICES (61600-61699)			
61610 Engineering			
61615 SAAS Fees - DFA			
61616 MMRS Fees			
61620 Department of Audit			
6162X Accounting (61621-61624)			
6163X Legal (61630-61636)			
6164X Medical Services (61640-61646)			
61650 State Personnel Board			
6165X Personnel Services Contracts (61651-61653)			
61658 Personnel Services Contracts - SPAHRS			
6166X Court Costs & Reporters (61661-61666)			
61670 Laboratory & Testing Fees	39,513	1,500	1,500
6168X Contract Worker (61682-61688)			
61690 Other Fees & Services			
TOTAL (F)	39,513	1,500	1,500

**SCHEDULE B
CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014
G. OTHER CONTRACTUAL SERVICES (61700-61899)			
61700 Liability Insurance Pool Contributions (Tort Claims)			
61710 Insurance & Fidelity Bonds			
61715 Insurance Computer Equipment			
61720 Membership Dues			
61721 Subscriptions	4,377	1,000	1,000
Laundry and Dry Cleaning			
Custodial Services	43,916	40,000	40,000
Maintenance Contracts - Equipment	3,088	3,000	3,000
Pest Control			
Garbage Disposal	1,853	1,550	1,550
Computer Usage Charges			
Software Maintenance	47,762	40,000	40,000
Membership Dues			
Contractual Services - HPC Retainage	232,218	95,880	95,880
Other Miscellaneous Contractual Services (includes MTA)	333	300	300
TOTAL (G)	333,547	181,730	181,730
H. INFORMATION TECHNOLOGY (61900-61990)			
61902 IS Professional Fees - Outside Vendor	1,890	1,500	1,500
61905 IS Professional Fees - ITS			
6191X IS Training/Education (61914-61915)			
61917 Service Charges to State Data Center			
61918 Data Entry			
61921 Software Acquisition and Installation			
61922 Basic Telephone Monthly - Outside Vendor			
61923 Basic Telephone Monthly - ITS	38,676	38,000	38,000
61924 Long Distance Charges - Outside Vendor			
61925 Long Distance Charges - ITS	16,288	15,000	15,000
61926 Private Data Line Monthly Charges - Outside Vendor			
61927 Private Data Line Monthly Charges - ITS			
61928 Public Network Access Charges - Outside Vendor	4,020	4,020	4,020
61929 Public Network Access Charges - ITS			
6193X IS Related Rentals (61932-61933)			
61938 Pager Usage Time - Outside Vendor			
61939 Cellular Usage Time - Outside Vendor			
61961 Maintenance/Repair of IS Equipment			
61962 Maintenance/Repair of Telephone Systems (ITS)			
TOTAL (H)	60,874	58,520	58,520
I. OTHER (61991-61999)			
6199X Prior Year Expense (61996-61998)			
61999 Contractual Services - No PO Required			
TOTAL (I)			

**SCHEDULE B
CONTRACTUAL SERVICES CONTINUED**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014
GRAND TOTAL <i>(Enter on Line I-B of Form MBR-1)</i>	494,312	260,000	260,000
FUNDING SUMMARY:			
GENERAL FUNDS	494,312	260,000	260,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	494,312	260,000	260,000

**SCHEDULE C
COMMODITIES**

MSU - Center for Advanced Vehicular Systems
Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014
A. MAINTENANCE & CONSTR. MATERIALS & SUPPLIES (62010-62099)			
62040 Lumber Parts			
62050 Steel & Other Metals			
62060 Paints			
Total (A)			
B. PRINTING & OFFICE SUPPLIES & MATERIALS (62100-62199)			
62110 Printing Binding			
62120 Duplication & Reproduction Supplies			
62130 Office Supplies & Materials	31,531	35,000	35,000
62140 Paper Supplies	696	1,500	1,500
62150 Maps, Manuals, Library Books			
62160 Office Equipment (not capital outlay)	5,824	7,000	7,000
Total (B)	38,051	43,500	43,500
C. EQUIPMENT REPAIR PARTS, SUPPLIES & ACCES. (62200-62299)			
62210 Fuels - Gasoline	1,007	2,000	2,000
62251 Repair Vehicle			
62270 Radio & TV Supply & Repair			
62271 Repair of Comm Systems, Parts			
62290 Other Equipment Repair Parts	2,080	3,500	3,500
Total (C)	3,087	5,500	5,500
D. PROFESSIONAL & SCI. SUPPLIES AND MATERIALS (62300-62399)			
62330 Photographic Supplies	202	400	400
62340 Drugs & Chemicals - Medical & Lab Use	655	1,000	1,000
62390 Other Professional Scientific	9,331	12,000	12,000
Total (D)	10,188	13,400	13,400
E. OTHER SUPPLIES & MATERIALS (62400-62999)			
62420 Hardware, Plumbing & Electrical	1,414	4,000	4,000
62450 Janitor Supplies & Cleaning	5,000	7,500	7,500
62460 Wearing Material			
62470 Food			
62520 Decal Signs			
62530 Uniforms & Wearing Apparel	21	100	100
62560 Eating Utensils			
62590 Other Supplies & Materials	4,581	9,000	9,000
62595 Other Equipment (less than \$1,000)	1,562	2,000	2,000
Total (E)	12,578	22,600	22,600
GRAND TOTAL (A, B, C, D & E) <i>(Enter on Line I-C of Form MBR-1)</i>	63,904	85,000	85,000
FUNDING SUMMARY:			
GENERAL FUNDS	63,904	85,000	85,000
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	63,904	85,000	85,000

**SCHEDULE D-1
CAPITAL OUTLAY
OTHER THAN EQUIPMENT**

MSU - Center for Advanced Vehicular Systems
Name of Agency _____

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014
A. LANDS (63100-63199)			
63110 Land for Buildings			
63120 Land for Right-of-Way			
63130 Land for Aggregates			
63170 Land Purchased for Other Purposes			
TOTAL (A)			
B. BUILDINGS & IMPROVEMENTS (63200-63299)			
63250 Buildings - Purchased, Constructed, Remodeled			
TOTAL (B)			
C. INFRASTRUCTURE & OTHER (63500-63999)			
635XX Other			
639XX Other			
TOTAL (C)			
GRAND TOTAL <i>(Enter on Line I-D-1 of Form MBR-1)</i>			
FUNDING SUMMARY:			
GENERAL FUNDS			
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS			

**SCHEDULE D-2
CAPITAL OUTLAY EQUIPMENT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

EQUIPMENT BY ITEM	Act. FY Ending June 30, 2012		Est. FY Ending June 30, 2013		Req. FY Ending June 30, 2014		
	No. of Units	Total Cost	No. of Units	Total Cost	No. of Units	Cost Per Unit	Total Cost
A. VEHICLES (see form MBR-1-D-3)							
B. ROAD MACHINERY, FARM & OTHER EQUIPMENT							
63320 Road Machinery							
TOTAL (B)							
C. OFFICE MACHINES, FURNITURE, FIXTURES, EQUIP.							
63330 Office Equipment, Furniture							
TOTAL (C)							
D. IS EQUIPMENT (DP & TELECOMMUNICATIONS)							
63421 IT/IS Equipment							
TOTAL (D)							
E. EQUIPMENT - LEASE PURCHASE (63460-63476)							
63462 Lease-Purchase - Information Systems Equipment							
634XX Lease Purchases							
63463 Lease-Purchase - Telecom. Infrastructure / Equipment							
63468 Lease-Purchase - Telephone Equipment							
63469 Lease-Purchase - Two-way Radio Equipment							
63476 Lease-Purchase - Other Equipment							
TOTAL (E)							
F. OTHER EQUIPMENT							
63490 Other Equipment							
63396 Betterments or Accessories for Vehicles							
63495 Betterments or Accessories for Other than Vehicles							
Explorer MX4F digital recording system							
TOTAL (F)							
GRAND TOTAL <i>(Enter on Line I-D-2 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE D-3
PASSENGER/WORK VEHICLES**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	Vehicle Inventory June 30, 2012	FY Ending June 30, 2012		FY Ending June 30, 2013		FY Ending June 30, 2014	
		No. of Vehicles	Actual Cost	No. of Vehicles	Estimated Cost	No. of Vehicles	Requested Cost
A. PASSENGER & WORK VEHICLES (63310, 63390-63400)							
63310 Automobile, Compact Sedan (AU CS)							
63310 Automobile, Full Size Sedan (AU FS)							
63310 Automobile, Mid Size Sedan (AU MS)							
63310 Automobile, Mid Size Station Wagon (AU MW)							
63310 Automobile Utility (AU UT)							
63390 Truck, Carry-All (TK CA)							
63390 Truck, Compact Pickup (TK CU)							
63390 Truck, Dump Bed (TK DU)							
63390 Truck, Medium Duty 2.5 Ton (TK MD)							
63390 Truck, Mid Size Pickup (TK MU)							
63391 Truck, Heavy Duty 5 Ton (TK HD)							
63391 Truck, Heavy Duty Pickup (TK HU)							
63392 Sport Utility Vehicle (TK SU)							
63393 Van, Cargo (VN CD)							
63393 Van, Full Size (VN FV)							
63393 Van, Mid Size (VN MV)							
63400 Other Vehicles							
TOTAL (A)							
B. BETTERMENTS OR ACCESSORIES FOR VEHICLES (63395)							
63395 Betterments or Accessories for Vehicles							
TOTAL (B)							
GRAND TOTAL <i>(Enter on Line I-D-3 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE D-4
WIRELESS COMMUNICATION DEVICES**

MSU - Center for Advanced Vehicular Systems
Name of Agency _____

MINOR OBJECT OF EXPENDITURE	Device Inventory June 30, 2012	Act FY Ending June 30, 2012		Est FY Ending June 30, 2013		Req FY Ending June 30, 2014	
		No. of Devices	Actual Cost	No. of Devices	Estimated Cost	No. of Devices	Requested Cost
A. CELLULAR PHONES (63435)							
63435 Cellular Phones							
Total (A)							
B. PAGERS (63434)							
63434 Pagers, Paging Equipment							
Total (B)							
C. WIRELESS PERSONAL DIGITAL ASSISTANTS (63435)							
63435 Wireless PDAs, Blackberry, etc							
Total (C)							
GRAND TOTAL <i>(Enter on Line I-D-4 of Form MBR-1)</i>							
FUNDING SUMMARY:							
GENERAL FUNDS							
STATE SUPPORT SPECIAL FUNDS							
FEDERAL FUNDS							
OTHER SPECIAL FUNDS							
TOTAL FUNDS							

**SCHEDULE E
SUBSIDIES, LOANS & GRANT**

MSU - Center for Advanced Vehicular Systems

Name of Agency

MINOR OBJECT OF EXPENDITURE	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014
A. SCHOOL GRANTS TO COUNTIES & MUNICIPALITIES (64000-64599)			
TOTAL (A)			
B. GRANTS TO I.H.L. & OTHER POLITICAL SUBDIVISIONS (64600-64699)			
TOTAL (B)			
C. GRANTS TO NON-GOVERNMENT INSTNS & INDS (64700-64999)			
TOTAL (C)			
D. DEBT SERVICE & JUDGEMENTS (65000-65399)			
65040 Interest on Lease Purchases			
TOTAL (D)			
E. OTHER (66000-89999)			
Cost Share on Joint Industry / University / Federal	348,031	350,000	350,000
Fellowships	27,000	12,000	12,000
Start-up Commitments	101,775	107,097	107,097
TOTAL (E)	476,806	469,097	469,097
GRAND TOTAL <i>(Enter on Line I-E of Form MBR-1)</i>	476,806	469,097	469,097
FUNDING SUMMARY:			
GENERAL FUNDS	476,806	469,097	469,097
STATE SUPPORT SPECIAL FUNDS			
FEDERAL FUNDS			
OTHER SPECIAL FUNDS			
TOTAL FUNDS	476,806	469,097	469,097

NARRATIVE
2014 BUDGET REQUEST

MSU - Center for Advanced Vehicular Systems
Name of Agency

The Center for Advanced Vehicular Systems (CAVS) at Mississippi State University is an interdisciplinary center comprised of engineering, research, development, and technology transfer teams focused on enhancing human and payload mobility. The CAVS activities are clustered around material science, manufacturing process modeling, computational mechanics, computational fluid dynamics, multi-scale modeling, vehicular systems engineering, design optimization, human factors and ergonomics, alternative powered systems, and intelligent electronic systems. Research activities include efforts on vehicle weight reduction, structural integrity, hybrid power train design, energetics, advances in improved design and predictability as well as advances in improved diagnostics, manufacturing, training systems, and computational design technologies. While CAVS projects generate timely solutions relevant to regional manufacturers, CAVS research seeks to expand knowledge that is essential for sustained economic development. Through direct involvement in various activities at CAVS, students gain valuable experience that leverages on their classroom learning.

The research groups within CAVS are dynamic with the ability to maximize the utilization of advancing technologies. In recognition that today's complex problems facing manufacturing competitiveness and product safety and reliability must be addressed by cross-disciplinary teams, CAVS researchers approach the problems from diverse viewpoints to arrive at appropriate solutions. Each group at CAVS shares a passion for helping industry realize and sustain a competitive advantage within the global economy.

In support of its mission, CAVS also offers a direct interface to manufacturers and industries throughout the state and region via the CAVS Engineering Extension, located in Canton, Mississippi. The services offered by the CAVS Engineering Extension include discrete event simulation, Six Sigma, lean manufacturing, and metrology. With a staff of about 220 faculty, research staff, postdocs, and students, the engineering enterprise of the Center for Advanced Vehicular Systems is well situated to support the research needs of industry.

CAVS is continuing to serve as a regional resource for the recruiting of automotive and related industries. The recent recruitments of GreenTech Automotive and PACCAR to the state of Mississippi were facilitated by the core competencies in research, extension, and automotive related academic prowess at CAVS. As the US economy is turning around these two organizations have both launched their product lines in 2012 and will be in need of support from CAVS for warranty and other assembly line issues. CAVS has also been proven to be a leading economic development engine for the State of Mississippi. According to surveys conducted by the Manufacturing Extension Partnership of Mississippi in the 5-year period of 2006-2011, CAVS has had more than \$5.3 billion economic impact on the state and is responsible for over 2,400 jobs created or retained. As for the quality of the students being produced by MSU's engineering programs and CAVS - we have placed first for 4 out of the last 6 years in the DOE/GM automotive programs (ChallengeX, EcoCar and EcoCar2) -- hard evidence that showcases the quality of our students.

CAVS represents a commitment by the State of Mississippi to work with and support Mississippi industry through project-based activities. The management at CAVS and the research team in general, recognize the need to generate economic development via technological and scientific discovery. This means CAVS serves as a knowledge resource for existing and future Mississippi industries. As with all academic research centers, CAVS is dependent on stable infrastructure support to ensure the best and brightest engineering talent is brought to bear on the regional growth initiatives and development of a strong R&D infrastructure to support the emerging Southern Automotive Corridor. CAVS now serves as an active member of the Mississippi Automotive Manufacturers Association (MAMA) and it has established a close working relationship with the Nissan assembly facility in Canton and is beginning to build that relationship with Toyota in Blue Springs. CAVS faculty and staff are continuing to work closely with MDA and local economic development authorities throughout the state in recruiting new industry to the state. The State infrastructure funds allow CAVS to build toward its basic mission, with already much evidence of impact via an effective engineering capability to support Mississippi industry. Having access to knowledgeable researchers and providing leading edge capabilities is an important asset for the State.

NARRATIVE
2014 BUDGET REQUEST

MSU - Center for Advanced Vehicular Systems

Name of Agency

Recurring State funding for CAVS is required as the foundation continues to be built via the development of the facilities, staff, and knowledge base. Current State funding is critical to supporting the infrastructure while seeding new research initiatives, student activities, and engineering extension. Further, many recent activities have helped Mississippi industry via workforce training, short courses, and partnerships designed to attract federal and industrial funding. At present, the State support is providing less than 20 percent of the total CAVS operating funds. Continued leveraging of the State funding is critical to building a self-sustaining organization satisfying the obligations of CAVS to our partners, the state, and the university.

In 2014, CAVS has requested an increase in its State funding. This request is asked to help with infrastructural costs associated with new industry that need technical support (e.g., the new PACCAR diesel engine manufacturing facility, Toyota and GreenTech Automotive vehicle production) and to expand the engineering extension component of CAVS. When CAVS was initially envisioned it was focused on conventional automotive vehicles (i.e., gasoline fueled internal combustion engines) and a manufacturing focus in the Canton area. We are now dealing with the reality that the industry is changing to biofuels and electric hybrids. CAVS work with ChallengeX and EcoCAR has positioned it well to support the needs of Toyota, GreenTech Automotive and their Tier 1 and 2 supply chains; however, there is a need to update CAVS facilities to position it to provide the level of support necessary for supporting the Mississippi hybrid electric vehicle industry. Also, with PACCAR building large diesel engines in Columbus, there is a need to expand CAVS engine test facilities to better accommodate PACCAR's need for engineering test capability. Also, there is a need to reach out beyond the Canton based engineering extension activity and to better support statewide industry. This additional fund will be used to situate CAVS to be better able to support Mississippi industry over the next 5 years.

**OUT-OF-STATE TRAVEL
FISCAL YEAR 2012**

MSU - Center for Advanced Vehicular Systems

Agency Name

Note: All expenditures recorded on this form must be totaled and said total must agree with the out-of-state travel amount indicated for FY 2012 on Form Mbr-1, line I.A.2.b.

Employee's Name	Destination	Purpose	Travel Cost	Funding Source
Garrison, Teena	Lake Tahoe, CA	Present at International Driving Symposium	1,745	General Funds
Whittington, Wilburn	Lincoln, AL	Present to Honda Now Model team	183	General Funds
Al-Shubailat, Omar	Troy, MI	Training at LMS Engineering Innovation	2,016	General Funds
Wheeler, Rachel	Troy, MI	Training at LMS Engineering Innovation	1,144	General Funds
McGinley, John	Lake Tahoe, CA	Present at International Driving Symposium	1,246	General Funds
Branch, Victor	Palestine, TX	Attend NASA Wallops Balloon Experience	929	General Funds
Walden, Clay	Washington, DC	Meet with Federal Agencies	1,272	General Funds
Sheely, Robert	Washington, DC	Meet with Federal Agencies	1,217	General Funds
Branch, Victor	Hot Springs, AR	Presentation for Technology Career Students	807	General Funds
Sheely, Robert	Atlanta, GA	Meet with Economic Development Auth	374	General Funds
Branch, Victor	St. Louis, MO	Present at Nat. Assoc for Career and Tech Edu	1,101	General Funds
Crosswhite, Tracie	Orlando, FL	Nat Council of Univ Res Admin (NCURA) Conf	425	General Funds
Richardson, Mary Ann	Orlando, FL	Attend NCURA Conference	846	General Funds
Puryear, Stephen	Orlando, FL	Attend NCURA Conference	1,786	General Funds
Sheely, Robert	New Orleans, LA	Attend MSU College of Bus Advisory Board	673	General Funds
		Meet		
Total Out of State Travel Cost			\$15,764	

FEES, PROFESSIONAL AND OTHER SERVICES
(EXPENDITURE CODES 61600-61699)

MSU - Center for Advanced Vehicular Systems

Name of Agency

TYPE OF FEE AND NAME OF VENDOR	Retired w/ PERS	(1) Actual Expenses FY Ending June 30, 2012	(2) Estimated Expenses FY Ending June 30, 2013	(3) Requested for FY Ending June 30, 2014	Fund Num.
61610 Engineering					
TOTAL 61610 Engineering					
61615 SAAS Fees - DFA					
TOTAL 61615 SAAS Fees - DFA					
61616 MMRS Fees					
TOTAL 61616 MMRS Fees					
61620 Department of Audit					
TOTAL 61620 Department of Audit					
6162X Accounting (61621-61624)					
TOTAL 6162X Accounting (61621-61624)					
6163X Legal (61630-61636)					
David Ware & Associates / Legal Fees					
<i>Comp. Rate: \$75/hour</i>					
TOTAL 6163X Legal (61630-61636)					
6164X Medical Services (61640-61646)					
TOTAL 6164X Medical Services (61640-61646)					
61650 State Personnel Board					
TOTAL 61650 State Personnel Board					
6165X Personnel Services Contracts (61651-61653)					
TOTAL 6165X Personnel Services Contracts (61651-61653)					
61658 Personnel Services Contracts - SPAHRS					
TOTAL 61658 Personnel Services Contracts - SPAHRS					
6166X Court Costs & Reporters (61661-61666)					
TOTAL 6166X Court Costs & Reporters (61661-61666)					
61670 Laboratory & Testing Fees					
CAVS Service Center / Scientific Testing		39,513	1,500	1,500	General
<i>Comp. Rate: \$75/hour</i>					
TOTAL 61670 Laboratory & Testing Fees		39,513	1,500	1,500	
6168X Contract Worker (61682-61688)					
TOTAL 6168X Contract Worker (61682-61688)					
61690 Other Fees & Services					
Russell Enterprises / Striping of parking lot @ Canton					General
<i>Comp. Rate: \$45 per hour</i>					
TOTAL 61690 Other Fees & Services					
GRAND TOTAL (61600-61699)		39,513	1,500	1,500	

VEHICLE PURCHASE DETAILS

MSU - Center for Advanced Vehicular Systems

Name of Agency

Year	Model	Person(s) Assigned To	Vehicle Purpose/Use	FY2014 Req. Cost
				0
				<hr/>
				0
			TOTAL VEHICLE REQUEST	0

**VEHICLE INVENTORY
AS OF JUNE 30, 2012**

MSU - Center for Advanced Vehicular Systems _____

Name of Agency

Veh. Type	Vehicle Descript.	Model Year	Model	Person(s) Assigned To	Purpose/Use	Tag Number	Mileage On 6-30-12	Average Miles per Year	Replacement Proposed	
									FY 2013	FY 2014

Vehicle Type = Passenger/Work

**PRIORITY OF DECISION UNITS
FISCAL YEAR**

MSU - Center for Advanced Vehicular Systems _____
Agency Name

Program	Decision Unit	Object	Amount
Priority # 1			
Program # 1 : RESEARCH			
	Personnel Cost Adjustments		
		Salaries	138,966
		Total	138,966
		General Funds	138,966
Priority # 2			
Program # 2 : PUBLIC SERVICE			
	Personnel Cost Adjustments		
		Salaries	27,281
		Total	27,281
		General Funds	27,281

CAPITAL LEASES

MSU - Center for Advanced Vehicular Systems

Name of Agency

Vendor/ Item Leased	Original Date of Lease	Original Number of Months of Lease	Number of Months Remaining on 6-30-12	Last Payment Date	Interest Rate	Amount of Each Monthly/Yearly Payment			Total of Payments to be Made							
						Principal	Interest	Total	Actual FY 2012	Estimated FY 2013			Requested FY 2014			
										Principal	Interest	Total	Principal	Interest	Total	
/	//	0	0	//	.000											

Summary of 3% General Fund Program Reduction to FY2013 Appropriated Funding by Major Object

MSU - Center for Advanced Vehicular Systems _____

Major Object	FY2013 GENERAL FUND REDUCTION	AFFECT ON FY2013 STATE SUPPORT SPECIAL FUNDS	AFFECT ON FY2013 FEDERAL FUNDS	AFFECT ON FY2013 OTHER SPECIAL FUNDS	TOTAL 3% REDUCTIONS
PERSONAL SERVICES					
TRAVEL					
CONTRACTUAL SERVICES	(82,754)				(82,754)
COMMODITIES	(16,246)				(16,246)
OTHER THAN EQUIPMENT					
EQUIPMENT					
VEHICLES					
WIRELESS COMM. DEVICES					
SUBSIDIES, LOANS, ETC					
TOTALS	(99,000)				(99,000)